

ABSTRACT

A fuel cell is provided with a membrane electrode assembly (26) in which an anode (26B) and a cathode (26C) are formed on both sides of a polymer electrolyte film (26A). The fuel cell is provided with a downstream gas supply channel (33) facing the cathode (26C), an upstream gas supply channel (32) through which a cathode gas is supplied to the downstream gas supply channel (33) and which does not face the cathode (26C), and a partition wall (28A) which is made from a porous material and partitions the downstream gas supply channel (33) and the upstream gas supply channel (32). Electro-chemical reactions of the cathode gas in the cathode (26C) generates a large amount of moisture. The moisture passes through the partition wall (26A) and humidifies the cathode gas of the upstream gas supply channel (32), thereby making the moisture distribution in the membrane electrode assembly (26) uniform.